REMARKS

This application has been carefully reviewed in light of the Office Action dated September 2, 2005. Claims 1, 153 and 155 have been amended. Claims 1, 4 to 6, 153 and 155 are presented for examination, of which Claims 1, 153 and 155 are independent. Reconsideration and further examination are respectfully requested.

Claims 1 to 6, 153 and 155 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,483,261 (Yasutake). Reconsideration and withdrawal of the rejections are respectfully requested.

The present invention relates to the processing of position information, and more particularly to the detection of position coordinates and paths of coordinates input by, for example, a finger, a pen, or pointer. The invention interprets an instruction to perform an operation from the path input by the user. One feature of the present invention lies in the identification of a corresponding one designated position, from among a plurality of designated positions detected at a preceding time, having an area closest in size to an area of each of the plurality of designated positions detected at a current time. In this way, since identification is based on area, the present invention can distinguish travel paths of two or more designated positions which pass through the same position at a time.

Currently amended Claim 1 is directed to a position information processing apparatus for processing position information comprising. The apparatus comprises a designated position detector means for detecting a plurality of concurrently designated positions at a plurality of times, sequentially; an identifying means for identifying, each time the concurrently designated positions are detected, a corresponding one designated position, from among the plurality of designated positions detected at a preceding time, having an area closest in size to an area of each of the plurality of designated positions

detected at a current time; and a travel path recognizer means for recognizing respective travel paths of the plurality of designated positions by recognizing each travel path which connects corresponding designated positions detected at the plurality of times.

Independent Claims 153 and 155 are method and computer program claims, respectively, that correspond generally to the apparatus of independent Claim 1.

The applied art is not seen to disclose or suggest the features of independent Claims 1, 153 and 155, and in particular, is not seen to disclose or suggest at least the feature of identifying a corresponding one designated position, from among a plurality of designated positions detected at a preceding time, having an area closest in size to an area of each of the plurality of designated positions detected at a current time.

Yasutake relates to a graphical input controller and method with rear screen image detection. Yasutake is seen to teach an interactive graphics system including one or more semi-transparent screens with a rear-mounted video camera. The camera is arranged to detect the shadows of objects, such as fingers, touching the screens (Yasutake, column 2, lines 17 to 21). The areas touched by a user are identified as control objects, and each control object is reduced to a single set of coordinates representing the centroids of the control objects. The coordinates of the control objects are compared to previously-stored control objects to determine if they represent old objects that have moved or new objects that have newly appeared. To accomplish this, the distance between all new objects and all old objects is calculated. The positions of old objects are updated to that of the nearest new object, provided that they are within an acceptable distance. If they are not within an acceptable distance, the old object is removed and a new object is entered. (Yasutake, column 6, line 65 - column 7, line 7).

As such, Yasutake is seen to rely on a distance calculation. The present invention on the other hand, identifies designated positions based on area. More specifically, the present invention identifies a corresponding one designated position, from among a plurality of designated positions detected at a preceding time, having an area closest in size to an area of each of the plurality of designated positions detected at a current time. Yasutake is not seen to teach identifying designated positions based on area.

In the present Office Action, a designated area, such as a contact area by a finger, is equated with a designated position. Similarly, the Office Action equates Yasutake's control objects 705, 710 and 715 with both "designated areas" and "designated positions." Applicants submit that the Office Action's interchanging use of "designated area" and "designated position" has led to an inaccurate comparison of the present invention and Yasutake as area and position are not identical concepts.

Yasutake recognizes that area and position are separate concepts. For example, Yasutake refers to calculation of a "centroid," which is a single set of coordinates (see column 8, lines 58 to 60), based on size and shape of objects. In the Office Action, Yasutake is cited at lines 56 to 58 of column 8, in support of the position that the system of Yasutake operates based on areas. Applicant's submit that such a position is incorrect, since the passage immediately following the cited passage from Yasutake clearly specifies that the areas are reduced to a centroid, which is a single set of positional coordinates, and that it is the positional coordinates that are compared, and not the areas:

> "The control objects in FIG. 7b are represented by "spots," such as control objects 705, 710, and 715, of varying size and shape. In FIG. 7c, each control object has been reduced to a single set of coordinates representing the centroids of the control objects, corresponding to step 530. Finally, in

FIG. 7d, these coordinates are compared to the coordinates of existing control objects so as to determine which objects have moved to the new locations, corresponding to steps 540 and 550." (Yasutake, column 8, lines 56 to 64)

In particular, Yasutake discloses "the distance between all new objects and all old objects is calculated" based on their position coordinates, and "[t]he positions of old objects is updated to that of the nearest new object." (Yasutake, column 7, lines 1 to 17). However, the Examiner views Yasutake's distance calculation as identifying an old control object "having an area closest (i.e., nearest new object)." Therefore, Yasutake neither discloses nor suggests identifying a designated position, from among a plurality of designated positions, having an area closest in size to an area of each of the plurality of designated positions as Yasutake operates on positional coordinates and not areas.

Accordingly, based on the foregoing amendments and remarks, independent Claims 1, 153 and 155 are believed to be allowable.

The other claims in the application are each dependent from the independent claims discussed above and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

In view of the foregoing, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

REQUEST FOR INTERVIEW

Applicants request that the Examiner conduct a telephonic interview with Applicants' representative regarding this case. If such an interview has not been conducted before the Examiner takes this Amendment into consideration, Applicants respectfully request that the Examiner contact Applicants' representative as indicated below.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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